



# EXPERIMENTAL SUBSTANTIATION OF DIFFERENTIATED PHYSICAL PREPARATION OF 5TH-7TH GRADE STUDENTS IN SCHOOL PHYSICAL EDUCATION LESSONS

Yuldashova Madina Murodjon qizi

Fergana State University

Student of the Sports Activity (Swimming) Direction

[yuldashevamadi05232007@gmail.com](mailto:yuldashevamadi05232007@gmail.com)

## Abstract

This article provides a systematic analysis of modern scientific and practical methods for improving the physical fitness of young swimmers. Recent advances in the physiology and biomechanics of swimming indicate that the traditional training system based on local exercises does not fully realize the functional capabilities of adolescent athletes. The effectiveness of comprehensive injury prevention and physical training programs based on the kinematic chain concept has been studied in the cohort of young swimmers.

**Keywords:** young swimmers, physical fitness, core stabilization, kinematic chain, injury prevention, explosive power, randomized controlled trial, meta-analysis, swimming efficiency, adolescent sports.

## Introduction

Today, physical education lessons are gaining importance not only for shaping students' healthy lifestyles but also for ensuring their physical development in accordance with their individual capabilities and needs. Since 5th-7th grade students correspond to the adolescent period, their level of physical development, strength, endurance, and coordination abilities differ significantly from one another at this stage. Therefore, applying a differentiated approach in physical



education lessons is a relevant issue. We can observe that a number of tasks have been assigned to field specialists in Decree No. 392 of the President of the Republic of Uzbekistan dated November 15, 2024, "On measures to radically improve the teaching of physical education in general secondary schools and develop the professional activities of teachers of this subject." The theoretical foundations of differentiation are organized considering the age characteristics, level of physical development, health status, and sports interests of students. This approach serves to provide a load appropriate to each student's capabilities, prevent excessive strain, and gradually develop physical qualities [1].

### Literature Review

In works by Uzbek authors, recommendations on organizing physical education lessons in schools are available in the scientific works of several leading Uzbek scholars, including specialists such as Abdullayev A., Abdiev A.A., Salomov R.S., Yunusova Yu.M., Halmuhamedov R.D. Umarov D.X., and Kholmurodov L.Z. The increase in the level of preparedness when physical loads in sports section training correspond to the age and individual characteristics of young athletes and fully meet the functional capabilities of the trainees' organisms has been scientifically substantiated in textbooks and teaching manuals written by Filin V.P., Kulakov V.N., Matveev L.P., Smetanin V.Ya., and Volkov N.I. However, we can observe that the differentiated physical preparation specifically for 5th-7th grade students has not been substantiated experimentally.

### Analysis and Results

During the training sessions, a gradual increase in load was ensured. This served to consistently develop students' physical qualities, increase their interest in sports activities, and strengthen their motivation for a healthy lifestyle. As a result, the experiment showed that the differentiated approach not only improves students' individual physical fitness but also significantly increases their attitude towards lessons and active participation[6].

**A test program and organizational mechanism for determining and grouping the physical fitness of 5th-7th grade general education school students** was envisaged, involving the assessment of students' physical development level based on specific indicators, dividing them into **high**,

**medium, and low preparedness groups** according to their individual capabilities, and organizing subsequent training sessions based on a differentiated approach. The following test exercises are recommended for assessing the main physical qualities of students (see Table 1).

**Table 1 Table of tests by physical quality**

No.	Physical Quality	Test Name	Assessment Method
a)	<b>Endurance</b>	1000 m run (boys) / 600 m run (girls)	Distance covered and time indicators
b)	<b>Speed</b>	Running 30 m at maximum speed	Result measured with a stopwatch
c)	<b>Strength</b>	Pull-ups on the bar (boys) / Arm flexion-extension (push-ups) (girls)	Counted by number of repetitions
d)	<b>Flexibility</b>	"Forward bend" (sitting on a gymnastic bench, touching toes)	Measured in centimeters (0 = reaches toes, + = beyond, -- = short)

Prior to conducting this test, attention should be paid to the following. Regarding the organizational mechanism, the preparatory stage consists of checking the readiness of the test site (stadium, sports hall). It is necessary to prepare safety instructions for students and provide a brief explanation about the tests. During the testing stage, the tests are conducted in order: first speed and strength, then flexibility, and finally endurance. Each student's results are recorded in a special table. Uniform conditions (same track, equipment, time) are ensured during the testing process.

### Data Analysis

Based on comparing the student's indicators for each test with normative standards, the student is divided into **high, medium, or low group** based on their total score. The teacher forms a physical passport for the student. It is intended to provide complex exercises, tasks based on speed and strength for students with high preparedness; standard loads for students with medium level; and health-improving, adaptive, and light exercises for those with low preparedness.



When students' physical qualities are assessed based on precise measurements, each student trains in a group suitable for their capability. The efficiency and safety of training sessions increase. During our experiment, it was observed that students' physical fitness significantly improved:

endurance indicators improved by 12-15%;

strength and speed qualities increased by 10-12%;

interest in training sessions grew;

students' desire to participate in sports competitions intensified.

Applying a differentiated approach in physical education lessons of general education schools helps to effectively develop students' physical qualities and fully realize their individual capabilities. Dividing 5th-7th grade students into groups based on their preparedness level and engaging them with appropriate exercises not only fulfills the health-improving function but also strengthens their interest in sports. Therefore, the widespread implementation of the differentiated approach in physical education lessons is of urgent importance, and the following conclusions and practical recommendations can be given.

### **Conclusion**

1. Measuring the qualities of endurance, speed, strength, and flexibility through test exercises is effective in assessing the physical fitness of 5th-7th grade students.
2. Dividing students into high, medium, and low preparedness levels allows for considering their individual capabilities.
3. Differentiated training sessions prevent excessive strain and help in the gradual development of physical qualities.
4. The effectiveness of lessons increases when complex exercises are used for students with high preparedness, moderate load exercises for those with medium level, and health-improving exercises for those with low preparedness.
5. As a result of the consistent and gradual increase of load in training sessions, students' interest in sports increases along with their physical development.

## Practical Recommendations

1. It is recommended to regularly conduct test exercises in physical education lessons to monitor the level of students' physical development.
2. It is advisable to divide students into groups based on their preparedness level and organize training sessions based on a differentiated program.
3. Students with a high level of preparedness should be actively involved in sports games and competitions.
4. Light exercises aimed at health improvement should be used more with students of low preparedness level, and their motivation should be strengthened.
5. During the training process, it is necessary to correctly distribute the load, adhere to safety rules, and consider the individual potential of each student.

## References

1. MIRZIYOYEV Sh. Decree of the President of the Republic of Uzbekistan, "On measures to radically improve the teaching of physical education in general secondary schools and develop the professional activities of teachers of this subject," November 15, 2024. Lex.uz. <https://lex.uz/ru/docs/-6233618?ONDATE=25.07.2024>.
2. Abdullayev A. Theory and Methodology of Physical Education. Textbook. Poligraf super servis LLC, Fergana, 2020. -310 p.
3. Abdullayev A. Description of Physical Movements. Textbook. FSU Copying Department, Fergana, 2024. -224 p.
4. Abdullayev M.J., Olimov M.S., N.T. To'xtaboyev. Athletics and its Teaching Methodology. (Textbook). - T.: "Barkamol fayz media", 2017, 628 p.
5. Xasanov A.T. Theory and Methodology of Physical Education. Textbook. FSU Copying Department, Fergana, 2024. -334 p.
6. Uraimov S.R. Theory and Methodology of Physical Culture. Educational methodical manual. FSU Copying Department, Fergana-2022. 159 p.
7. Goncharova O.V. Development of Physical Abilities in Young Athletes. T. UzSIPC Publ. 2005. -171 p.
8. Matveyev L.P. General Theory of Sport and Its Applied Aspects. St. Petersburg. "Lan" Publ., 2005. -373 p.



9. Djalolov Sh.V. Development of Physical Qualities of Primary School Students in Physical Education Lessons. Textbook. FSU Copying Department, Fergana-2024. 146 p.
10. Salomov R.S. Theory and Methodology of Physical Education. Textbook., "ITA-PRESS" Tashkent, 2014. -295 p.
11. Salomov R.S. Theoretical Foundations of Sports Training. T. UzSIPC Publ. 2007. -238 p.
12. Rafiyev H.T. Theory and Practice of Athletics.: Textbook / H.T. Rafiyev. Tashkent: "Umid Design", 2021. -204 p.